



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/680,045	10/04/2000	Jon B. Avner	13768.172	1329

22913 7590 05/13/2004

WORKMAN NYDEGGER (F/K/A WORKMAN NYDEGGER &  
SEELEY)

60 EAST SOUTH TEMPLE  
1000 EAGLE GATE TOWER  
SALT LAKE CITY, UT 84111

EXAMINER

SANTOS, PATRICK J D

ART UNIT PAPER NUMBER

2171

DATE MAILED: 05/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/680,045

Applicant(s)

AVNER ET AL.

Examiner

Patrick J Santos

Art Unit

2171

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☒ Claim(s) 25-28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

1. Claims 25-28 are objected to for the following minor informality: the phrase "...in the database **comprises** comprise computer..." (Specification: p. 28, lns. 7, 12, 17, and 22), contains a redundant instance of the word, "comprises" and should instead read, "...in the database comprise computer..." Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-8, 16-17, 19-21, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,504,897 issued to Gans et al. (hereafter Gans '897), in view of the publication "COM+ Technical Series: Loosely Coupled Events", issued by Microsoft MSDN (TM), September '99, (hereafter Microsoft '99).

#### Claim 1:

Regarding Claim 1, Gans '897 discloses an electronic mail system implemented with a relational database. Specifically, Gans '897 discloses: a database management system that includes a database engine that accesses and updates objects in a database (Gans '897: Abstract), the database engine receiving high-level document commands (Gans '897: col. 5, lns. 10-46),

each high-level document command for performing an operation on a document that is associated with a plurality of tables in the database (Gans '897: col. 5, ln. 62 to col. 6, ln. 2; col. 7, lns. 46-57), comprising the following:

- an act of implementing a high-level document command in the database (Gans '897: Gans '897: col. 5, lns. 10-46; col. 5, ln. 62 to col. 6, ln. 2).

Additionally, Gans '897 discloses that the database supports transactions i.e. reliable operation of database operations that support atomicity, consistency, isolation, and durability (Gans '897: col. 12, ln. 60 to col. 13, ln. 2). Moreover, Gans '879 discloses use of the Oracle (TM) relational database which is well known to have a database level transaction monitor (Gans '897: col. 2, lns. 18-21).

However, Gans '897 does not explicitly disclose: a method for reliably notifying client applications of the implementation of a particular high-level document commands in the database, the notification surviving even system failures, the method

- an act of altering a persistently stored notification table to reflect implementation of the high-level document command in the database;
- an act of identifying one or more client applications that are to be notified of the implementation of the high-level document command;
- an act of dispatching a notification of the implementation to the one or more identified client applications;
- an act of receiving acknowledgement from the one or more client applications that the notification has been received; or

- in response to receiving acknowledgement, an act of altering the notification table to reflect that the client application no longer needs to be notified of the implementation of the high-level document command in the database.

Microsoft '99 discloses a means of implementing loosely coupled events, a long-lived transacted notification system. Specifically, Microsoft '99 discloses: a method for reliably notifying client applications of the implementation of commands, the notification surviving even system failures (Microsoft '99: p. 1, Section titled, "Loosely Coupled Events – Application Scenario", lns. 1-22, (paras. 1-3)), the method

- an act of altering a persistently stored notification table to reflect implementation of the command (Microsoft '99: p. 1, Section titled, "Application Scenario", lns. 18-22 (para. 3), note that the COM+ catalog event store reads on a notification table);
- an act of identifying one or more client applications that are to be notified of the implementation of the command (Microsoft '99: p. 1, Section titled, "Application Scenario", lns. 18-22 (para. 3), note that checking the database to find interested subscribers reads on identifying clients to be notified of an event);
- an act of dispatching a notification of the implementation to the one or more identified client applications (Microsoft '99: p. 1, Section titled, "Application Scenario", lns. 18-22 (para. 3), note that creating a new object of each interested class and calling a method on the object reads on dispatching a notification);
- an act of receiving acknowledgement from the one or more client applications that the notification has been received (Microsoft '99: p. 5, Section titled, "Using Loosely

Coupled Events”, Ins. 13-21 (para. 3), note that methods returning and HRESULT of success or failure reads on an acknowledgement); and

- in response to receiving acknowledgement, an act of altering the notification table to reflect that the client application no longer needs to be notified of the implementation of the command (Microsoft '99: p. 5, Section titled, “Using Loosely Coupled Events”, Ins. 13-21 (para. 3), note that the COM+ Event Store and the Subscription Database (COM+ Catalog) reads upon a notification table which keeps track of the status of notifications).

It would have been obvious to a person having ordinary skill in the art to augment the transaction monitor in the electronic mail system on a relational database of Gans '897, with the Loosely Coupled Events system of Microsoft '99 to the. The motivation to accomplish said augmentation is suggested by Microsoft '99 which discloses that application of Loosely Coupled Events provides the advantage of supporting filtering and interception within the notification system as well as decoupling publisher and subscriber (Microsoft '99: p. 1, Section titled, “Loosely Coupled Events – Application Scenario”, Ins. 1-22, (paras. 1-3)).

Claims 2-8:

Regarding the Claims 2-8, Gans '897 and Microsoft '99 in combination disclose all the limitations of Claim 1 (supra). Further note that Gans '897 and Microsoft '99 in combination additionally disclose:

- (Claim 2) the notification table is stored in the database (Microsoft '99: p. 5, Section titled, “Using Loosely Coupled Events”, Ins. 13-21 (para. 3), note the COM+ Event Store and the Subscription Database (COM+ Catalog));

- (Claim 3) the act of dispatching a notification of the implementation to the one or more identified client applications comprises an act of transmitting a message to a machine that hosts the client application, the machine that hosts the client application being different than the machine that hosts to database management system (Microsoft '99: p. 5, Section titled, "Using Loosely Coupled Events", Ins. 1-7 (para. 1), note that COM+ Loosely Coupled Events is based on COM+ which in turn is implemented with DCE-RPC calls which support procedure calls across different machines);
- (Claim 4) the act of dispatching a notification of the implementation to the one or more identified client applications comprises an act of passing the notification through a function call to the identified client application, the client application hosted by the same machine as at least the portion of the database management system responsible for performing the act of dispatching the notification (Microsoft '99: p. 5, Section titled, "Using Loosely Coupled Events", Ins. 1-7 (para. 1), note that COM+ Loosely Coupled Events is based on COM+ which in turn is implemented with DCE-RPC calls which support procedure calls on the same machine);
- (Claim 5) the act of implementing a high-level document command in the database and the act of altering a persistently stored notification table to reflect the implementation of the high-level document command in the database are atomically performed, the acts of implementing and altering either both occurring or both not occurring at all (Gans '897: col. 12, ln. 60 to col. 13, ln. 2, note that the transaction management of Gans '897 reads on support of atomicity, consistency, isolation, and durability i.e. a distributed operation either both occurring or not at all);

- (Claim 6) the act of implementing a high-level document command in the database and the act of altering a persistently stored notification table to reflect the implementation occur in the same transaction of a database engine (Gans '897: col. 2, lns. 18-21, note that Gans '879 discloses use of the Oracle (TM) relational database which is well known to have a database level transaction monitor);
- (Claim 7) the document comprises an electronic mail message (Gans '897: col. 7, lns. 45-57);
- (Claim 8) the document comprises a folder (Gans '897: col. 14, lns. 9-15).

Claim 16:

Regarding Claim 16, Gans '897 discloses a database management system that includes a database engine that accesses and updates objects in a database (Gans '897: Abstract), the database engine receiving high-level document commands (Gans '897: col. 5, lns. 10-46), each high-level document command for performing an operation on a document that is associated with a plurality of tables in the database (Gans '897: col. 5, ln. 62 to col. 6, ln. 2; col. 7, lns. 46-57); and implementing a high-level document command in the database (Gans '897: Gans '897: col. 5, lns. 10-46; col. 5, ln. 62 to col. 6, ln. 2), a method for reliably notifying client applications of the implementation of particular high-level document commands in the database, the notification surviving even system failures (Gans '897: col. 12, ln. 60 to col. 13, ln. 2; col. 2, lns. 18-21, note that Gans '897 discloses that the database supports transactions i.e. reliable operation of database operations that support atomicity, consistency, isolation, and durability and moreover Gans '879 discloses use of the Oracle (TM) relational database which is well known to have a database level transaction monitor).



However, Gans '897 does not explicitly disclose: the method additionally comprising the following:

- a step for ensuring a corresponding notification about the high-level document command is preserved until all of the client applications to be notified acknowledge at least receipt of the notification.

Microsoft '99 discloses: a method for reliably notifying client applications of the implementation of particular high-level document commands in the database, the notification surviving even system failures (Microsoft '99: p. 1, Section titled, "Loosely Coupled Events – Application Scenario", lns. 1-22, (paras. 1-3)), the method additionally comprising the following:

- a step for ensuring a corresponding notification about the high-level document command is preserved until all of the client applications to be notified acknowledge at least receipt of the notification .

It would have been obvious to a person having ordinary skill in the art to apply the Loosely Coupled Events system of Microsoft '99 to the electronic mail system on a relational database of Gans '897. The motivation to combine is on the same basis as Claim 1 (supra).

Claims 17-18:

Regarding Claims 17-18, Gans '897 and Microsoft '99 in combination disclose all the limitations of Claim 1 (supra). Further note that Gans '897 and Microsoft '99 in combination additionally disclose:

- (Claim 17) the step for ensuring a corresponding notification about the high-level document command is preserved comprises the following (Microsoft '99: p. 5, Section

titled, "Using Loosely Coupled Events", lns. 13-21 (para. 3), note the COM+ Event Store and the Subscription Database (COM+ Catalog)):

- an act of altering a persistently stored notification table to reflect the implementation of the high-level document command in the database (Microsoft '99: p. 1, Section titled, "Application Scenario", lns. 18-22 (para. 3), note that the COM+ catalog event store reads on a notification table);
- an act of identifying one or more client applications that are to be notified of the implementation of the high-level document command (Microsoft '99: p. 1, Section titled, "Application Scenario", lns. 18-22 (para. 3), note that checking the database to find interested subscribers reads on identifying clients to be notified of an event);
- an act of dispatching a notification of the implementation to the one or more identified client applications (Microsoft '99: p. 1, Section titled, "Application Scenario", lns. 18-22 (para. 3), note that creating a new object of each interested class and calling a method on the object reads on dispatching a notification);
- an act of receiving acknowledgement from the one or more clients applications that the notification has been received (Microsoft '99: p. 5, Section titled, "Using Loosely Coupled Events", lns. 13-21 (para. 3), note that methods returning and HRESULT of success or failure reads on an acknowledgement); and
- in response to receiving acknowledgement, an act of altering the notification table to reflect that the client application no longer needs to be notified of the implementation of the high-level document command in the database (Microsoft

'99: p. 5, Section titled, "Using Loosely Coupled Events", Ins. 13-21 (para. 3), note that the COM+ Event Store and the Subscription Database (COM+ Catalog) reads upon a notification table which keeps track of the status of notifications); and

- (Claim 18:) the notification table is stored in the database (Microsoft '99: p. 5, Section titled, "Using Loosely Coupled Events", Ins. 13-21 (para. 3), note the COM+ Event Store and the Subscription Database (COM+ Catalog)).

Claims 19-21:

Examiner notes that Claims 19-21 are the computer program product embodiment of Claims 1, 3, and 4 respectively, and are rejected on the same basis.

Claim 30:

Regarding Claim 30, Gans '897 disclose a database management system that includes a database engine that accesses and updates tables in a database (Gans '897: Abstract), the database engine receiving high-level document commands, each high-level document command for performing an operation on a document that is associated with a plurality of tables in the database (Gans '897: col. 5, ln. 62 to col. 6, ln. 2; col. 7, lns. 46-57), a method for recovering from a database management system failure while allowing notifications that were to be set but for the failure to be sent to one or more client applications upon restarting the database management system (Gans '897: col. 12, ln. 60 to col. 13, ln. 2; col. 2, lns. 18-21, note that Gans '897 discloses that the database supports transactions i.e. reliable operation of database operations that support atomicity, consistency, isolation, and durability and moreover Gans '879

discloses use of the Oracle (TM) relational database which is well known to have a database level transaction monitor).

However, Gans '897 does not explicitly disclose: the method comprising the following:

- an act of examining a notification table upon restarting the database management system, the notification table identifying implemented high-level document commands for which one or more client applications should be notified;
- based on the examination of the notification table, an act of identifying a notification that should have been sent to the one or more client applications, but for which acknowledgement has not been received from the one or more client applications; and
- an act of dispatching the notification of the implementation to the one or more identified client applications.

Microsoft '99 discloses:

- an act of examining a notification table upon restarting the database management system, the notification table identifying implemented high-level document commands for which one or more client applications should be notified (Microsoft '99: p. 5, lns. 1-5, (para. 1); p. 1, lns. 8- 16 (para. 2), note that a loosely coupled system, such as that of Microsoft '99, effectively decouples the publisher and the subscriber, and further in combination with the transaction monitor of Gans '897 would reexamine the notification table upon restarting the database management system);
- based on the examination of the notification table, an act of identifying a notification that should have been sent to the one or more client applications, but for which acknowledgement has not been received from the one or more client applications

(Microsoft '99: p. 1, Section titled, "Application Scenario", lns. 18-22 (para. 3), note that checking the database to find interested subscribers reads on identifying clients to be notified of an event); and

- an act of dispatching the notification of the implementation to the one or more identified client applications (Microsoft '99: p. 1, Section titled, "Application Scenario", lns. 18-22 (para. 3), note that creating a new object of each interested class and calling a method on the object reads on dispatching a notification).

It would have been obvious to a person having ordinary skill in the art to apply the Loosely Coupled Events system of Microsoft '99 to the electronic mail system on a relational database of Gans '897. The motivation to combine is on the same basis as Claim 1 (*supra*).

4. Claims 9-13 and 22-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gans '897 and Microsoft '99 in view of U.S. Patent No. 6,018,762 issued to Brunson et al. (hereafter Brunson '762).

Claims 9-13:

Regarding Claim 9-13, Gans '897 and Microsoft '99 in combination disclose all the limitations of Claim 1 (*supra*). However, Gans '897 and Microsoft '99 in combination do not explicitly disclose the following:

- (Claim 9) the act of implementing the high-level document command in the database comprises the act of moving the document;
- (Claim 10) the act of implementing the high-level document command in the database comprises an act of deleting the document;

- (Claim 11) the act of implementing the high-level document command in the database comprises an act of copying the document;
- (Claim 12) the act of implementing the high-level document command in the database comprises an act of adding the document; or
- (Claim 13) the act of implementing the high-level document command comprises an act of updating the document;

Brunson '762 discloses a rules based electronic mail synchronizer which implements notifications for an arbitrary state change (Brunson '762: col. 3, lns. 29-35). State changes include:

- (Claim 9) moving the document;
- (Claim 10) deleting the document;
- (Claim 11) copying the document;
- (Claim 12) adding the document; and
- (Claim 13) updating the document.

It would have been obvious to a person having ordinary skill in the art to combine the synchronization invention of Brunson '763 to the Gans '897 and Microsoft '99 combination electronic mail database system. The motivation to combine is suggested by Brunson '763 which discloses the necessity of synchronizing mail store information (Brunson '763: col. 2, lns. 18-25). While the preferred embodiment of Brunson '762 is directed towards synchronization of separate mail clients, the synchronization method applies to any separate persistence of mail information. Further note, the synchronization invention of Brunson '762 is readily applied to an

arbitrary mail system without modification required by either the synchronization method of Brunson '762 and the mail system (Brunson '762: col. 2, lns. 45-47).

Claims 22-29:

Examiner notes that Claims 22-29 are the computer program product embodiment of Claims 6-13 respectively, and are rejected on the same basis.

5. Claims 14-15, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gans '897, Microsoft '99, and Brunson '762, in view of U.S. Patent No. 6,057,841 issued to Thurlow et al. (hereafter Thurlow '841).

Claims 14-15:

Regarding Claims 14-15, Gans '897 and Microsoft '99 in combination disclose all the limitations of Claim 1 (supra). However, Gans '897 and Microsoft '99 in combination do not explicitly disclose the following:

- (Claim 14) the received acknowledgement indicates that the client application has received the notification; or
- (Claim 15) the received acknowledgement indicates that the client application has implemented processes in response to the notification.

Brunson '762 discloses a rules based electronic mail synchronizer which implements notifications for an arbitrary state change (Brunson '762: col. 3, lns. 29-35). However, Brunson '762 does not explicitly disclose the following:

- (Claim 14) the received acknowledgement indicates that the client application has received the notification; or

- (Claim 15) the received acknowledgement indicates that the client application has implemented processes in response to the notification.

Thurlow '841 discloses a rules based electronic mail processing system. Specifically, Thurlow '841 explicitly disclose the following actions:

- (Claim 14) the received acknowledgement indicates that the client application has received the notification (Thurlow '841: Fig. 7A, note item, "notify me using a specific message"); or
- (Claim 15) the received acknowledgement indicates that the client application has implemented processes in response to the notification (Thurlow '841: Fig. 7A, note item, "notify me using a specific message", further note that this mechanism provides for indicating that the client application has implemented processes in response to a notification).

It would have been obvious to a person having ordinary skill in the art to combine the synchronization invention of Brunson '763 to the Gans '897 and Microsoft '99 combination electronic mail database system. The motivation to combine is on the same basis as Claims 9-13 (supra).

It would have been further obvious to a person having ordinary skill in the art to implement the acknowledgements Thurlow '841 within the Gans '897, Microsoft '99, Brunson '763 combination. The motivation to combine is suggested by Thurlow '841 which discloses that use of the Thurlow '841 wizard provides a more user-friendly means of specifying processing of electronic mail (Thurlow '841: col. 1, ln. 63 to col. 2, ln. 3).

Claim 31:



Regarding Claim 31, Gans '897 and Microsoft '99 in combination disclose all the limitations of Claim 30 (*supra*). However, Gans '897 and Microsoft '99 in combination do not explicitly disclose:

- an act of receiving acknowledgement from the one or more client applications that the notification has been received; or
- in response to receiving acknowledgement, an act of altering the notification table to reflect that the client application no longer needs to be notified of the implementation of the high-level document command in the database.

Brunson '762 discloses a rules based electronic mail synchronizer which implements notifications for an arbitrary state change (Brunson '762: col. 3, lns. 29-35). However, Brunson '762 does not explicitly disclose the following:

- an act of receiving acknowledgement from the one or more client applications that the notification has been received; or
- in response to receiving acknowledgement, an act of altering the notification table to reflect that the client application no longer needs to be notified of the implementation of the high-level document command in the database.

Thurlow '841 discloses a rules based electronic mail processing system. Specifically, Thurlow '841 explicitly disclose the following actions:

- an act of receiving acknowledgement from the one or more client applications that the notification has been received (Thurlow '841: Fig. 7A, note item, "notify me using a specific message"); or

- in response to receiving acknowledgement, an act of altering the notification table to reflect that the client application no longer needs to be notified of the implementation of the high-level document command in the database (Thurlow '841: Fig. 7A, note item, "notify me using a specific message", further note that this mechanism provides for indicating that the client application has implemented processes in response to a notification).

It would have been obvious to a person having ordinary skill in the art to combine the synchronization invention of Brunson '763 to the Gans '897 and Microsoft '99 combination electronic mail database system. The motivation to combine is on the same basis as Claims 14-15 (*supra*).

It would have been further obvious to a person having ordinary skill in the art to implement the acknowledgements Thurlow '841 within the Gans '897, Microsoft '99, Brunson '763 combination. The motivation to combine is on the same basis as Claims 14-15 (*supra*).

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Segall, Bill; David Arnold; Julian Boot; Michael Henderson; Ted Phelps; "Content Based Routing with Elvin 4", June 2000, published by the Proceedings of the AUUG.
- Kent, Jack; Douglas Terry; Willie-Sue Orr; "Browsing Electronic Mail: Experiences Interfacing a Mail System to a DBMS", 1988, Proceedings of the 14<sup>th</sup> VLDB Conference. Reference teaches, Walnut (TM), an electronic mail system implemented on a transacted relational database at Xerox PARC (TM).

- U.S. Patent No. 5,890,161, issued to Helland et al. Reference teaches the Microsoft Distributed Transaction Coordinator (MSDTC) (TM) as released in SQL Server 6.5 (TM), Microsoft Corporation's (TM) relational database.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J.D. Santos whose telephone number is 703-305-0707.

The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick J.D. Santos  
May 7, 2004

  
SAFET METJAHIC  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100